

ABSTRACT OF THE DISCLOSURE

An uninterruptad power supply (UPS) device with
uninterrupted neutral from input to output utilizes the same
converter for converting rectified AC power and battery power
5 to positive and negative high voltage (HV) rails. A simple
circuit is utilized for connecting the battery to the
conversion components of the PFC circuit without adverse
affect on the performance of the PFC circuit, and while
holding the battery substantially connected to neutral. In a
10 first embodiment, the circuit comprises a simple combination
of four diodes and a pair of high pass capacitors arranged so
that in both power line and battery supply modes the battery
is balanced around neutral. In a second, preferred
embodiment, one terminal of the battery is connected directly
15 to neutral.